

**Notice of Allowability**

Application No.

09/844,847

Applicant(s)

DE SOUZA ET AL.

Examiner

Art Unit

Baoquoc N. To

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08/26/2005.
2. ☒ The allowed claim(s) is/are 3,5,6,8-10,13,15,17-19,23,24,26-28, 30-32 and 36.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
JEAN M. CORRIELLUS  
PRIMARY EXAMINER

### **DETAILED ACTION**

1. Claims 3, 5-6, 8-10, 13, 15, 17-19, 23-24, 26-28, 30-32 and 36 are pending in this application.

#### ***Allowable Subject Matter***

2. Claims 3, 5-6, 8-10, 13, 15, 17-19, 23-24, 26-28, 30-32 and 36 are allowed over the prior art made of record.

None of the prior art alone or in combination either teach or suggest "receiving input from a user specifying a problem instance to be solved using an optimization engine, the problem instance specified by the user in a multi-dimensional format, the optimization engine being unable to solve the problem instance in the multi-dimensional format, the problem instance comprising: a problem domain including all data in the multidimensional data model located hierarchically below one or more specified intersection in the multi-dimensional data model, each intersection identified by specifying a member in each data dimension; an evaluation level specified by identifying a particular level in the hierarchy of each data dimension; an object function including a data measure or a combination of data measures to be optimized; and communicate the problem instance in the multi-dimensional format; and a transformation module operable to: receive the problem instance in the multi-dimensional format; transform the problem instance into a format appropriate for the optimization engine, the transformation including parsing the received problem instance to identify pre-defined multi-dimensional syntax and translating the multi-dimensional syntax to a syntax appropriate for the optimization engine; communicate the

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transformed problem instance to the optimization engine to be solved; receive a solution associated with the problem instance from the optimization engine; transform the solution into the multi-dimensional format; and communicate the transformed solution to the server” and in conjunction with “a server operate to: using a multi-dimensional data model, organize data stored at one or more data storage locations, the multi-dimensional data model including a plurality of data dimension each including a hierarchy of members.”

Claims 3, 5-6 and 8-10 are depended on claim 1; therefore, they are allowed under the same reason as to claim 1.

Claim 31 is the method claim, which is similar to the system in claim 1; therefore, the claim 31 is allowed under the same reason as to claim 1.

Claims 13, 15 and 17-20 are depended on claim 31; therefore, they are allowed under the same reason as to claim 31.

Claim 32 is the software to perform the method of claim 31 in the computer system of claim 1; therefore, the claim 32 is allowed under the same reason as to claim 31.

Claims 23, 24 and 26-28 are depended on claim 32; therefore, they are allowed under the same reason as to claim 1.

Claim 36 is a system, which shares similar features as to claim 30; therefore, claim 36 is allowed under the same reason as 30.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

NPL:

Nwabueze et al.	(US. Patent No. 6,775,675 B1)	Patent date: 08/10/2004.
Chen et al.	(US. Patent No. 6,917,940 B1)	Patent date: 07/12/2005.
Rioux et al.	(US. Patent No. 6,631,364 B1)	Patent date: 10/07/2003.
Iwamoto et al.	(US. Patent No. 6,671,680 B1)	Patent date: 12/30/2003.
Anwar	(US. Patent No. 6,750,864 B1)	Patent date: 06/15/2004.
Greenfield et al.	(US. Patent No. 6,684,207 B1)	Patent date: 01/27/2004.
Chen et al.	(US. Patent No. 6,684,206 B1)	Patent date: 01/27/2004.
Castelli et al.	(US. Patent No. 5,978,788)	Patent date: 11/02/1999.
Agrawal et al.	(US. Patent No. 5,832,475)	Patent date: 11/03/1998.

NPL:

Agarwal et al. . Efficient algorithms for geometric optimization, ACM Computing Surveys, 1998, page 412-458.

### ***Contact Information***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is at 571-272-4041 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached at 571-272-4107.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231.

The fax numbers for the organization where this application or proceeding is assigned are as follow:

(571) -273-8300 [Official Communication]

BQ To

November 21st, 2005

  
JEAN M. CORRIELLUS  
PRIMARY EXAMINER